



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002820
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002820001

Project Name:

Sample Description: Trip Blank

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.: Trip Blank

Date/Time Collected: 09/03/2009 09:01

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-WPC

Billing Code: 327.34-20

Send Report To: TDEC-WPC

Agency Invoiced: TDEC-WPC

Priority Date: 09/13/2009

Date/Time Received: 09/03/2009 12:47

Received By: E McCrary

Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	U	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	U	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820002
Project Name:
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 09/03/2009 11:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 110 uMHO
Temperature: 24.60
Dissolved Oxygen: 9.26 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	29	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	29	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002820003
Project Name:
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 09/03/2009 09:49
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 187 uMHO
Temperature: 23.52
Dissolved Oxygen: 9.96 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	60	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	52	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	17	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820004

Project Name:

Sample Description: Approx 100' downstream from middle dredge po

Sampler Project Name: TVA Ash Spill

Project Site No.: 2A

Station No.: Dredge Plume

Date/Time Collected: 09/03/2009 10:01

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-WPC

Billing Code: 327.34-20

Send Report To: TDEC-WPC

Agency Invoiced: TDEC-WPC

Priority Date: 09/13/2009

Date/Time Received: 09/03/2009 12:47

Received By: E McCrary

Field Determinations

pH: 7.78 pH Units

Chlorine, residual:

Conductivity: 198 uMHO

Temperature: 22.47

Dissolved Oxygen: 10.52 mg/L

Other:

Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	100	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	88	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	17	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820005
Project Name:
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 09/03/2009 10:09
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 209 uMHO
Temperature: 22.15
Dissolved Oxygen: 10.64 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	92	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	10	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002820006
Project Name:
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 09/03/2009 10:21
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.79 pH Units
Chlorine, residual:
Conductivity: 220 uMHO
Temperature: 20.83
Dissolved Oxygen: 10.97 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	95	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002820007
Project Name:
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 09/03/2009 10:32
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.82 pH Units
Chlorine, residual:
Conductivity: 257 uMHO
Temperature: 19.85
Dissolved Oxygen: 11.43 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	92	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	14	mg/L	10	10	A Peoples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002820008
Project Name:
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 09/03/2009 10:46
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 222 uMHO
Temperature: 23.32
Dissolved Oxygen: 9.72 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	87	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820009
Project Name:
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 09/03/2009 10:55
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.70 pH Units
Chlorine, residual:
Conductivity: 281 uMHO
Temperature: 23.78
Dissolved Oxygen: 10.29 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	85	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	A Peoples	9/4/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002820010	Field Determinations	
Project Name:		pH:	7.76 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley F	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	263 uMHO
Project Site No.:	6	Temperature:	19.54
Station No.:	CLINC004.5RO	Dissolved Oxygen:	11.30 mg/L
Date/Time Collected:	09/03/2009 11:09	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	09/13/2009		
Date/Time Received:	09/03/2009 12:47		
Received By:	E McCrary		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	9/10/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	96	mg/L	0.7	1	M Chen	9/8/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	9/4/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	9/4/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

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Nashville, TN 37243-1534

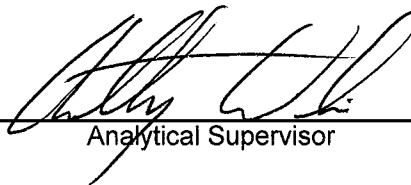
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002820
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002820001
Project Name:
Sample Description: Trip Blank
Sampler Project Name: TVA Ash Spill
Project Site No.:
Station No.: Trip Blank
Date/Time Collected: 09/03/2009 09:01
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	U	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	U	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	0.38J	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	U	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.050J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	1.5	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	U	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	U	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	U	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.29J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	1.9J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820001
Project Name:
Sample Description: Trip Blank
Sampler Project Name: TVA Ash Spill
Project Site No.:
Station No.: Trip Blank
Date/Time Collected: 09/03/2009 09:01
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820002
Project Name:
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 09/03/2009 11:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
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Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 110 uMHO
Temperature: 24.60
Dissolved Oxygen: 9.26 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	150	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	U	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	30	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.15J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	1.6	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.10J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	77	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	0.81J	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.11J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	2.1J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820002
Project Name:
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 09/03/2009 11:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 110 uMHO
Temperature: 24.60
Dissolved Oxygen: 9.26 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.11J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820003
Project Name:
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 09/03/2009 09:49
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 187 uMHO
Temperature: 23.52
Dissolved Oxygen: 9.96 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	630	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	770	µg/L	64.0	100	M Pattanayek	9/4/2009
Antimony	0.55J	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	9.5	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	70	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	0.21J	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.95J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	3.5	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	1.6	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	67	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	2.4	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	1.4J	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.24J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	11	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	4.1J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820003
Project Name:
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 09/03/2009 09:49
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 187 uMHO
Temperature: 23.52
Dissolved Oxygen: 9.96 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number:	K00002820004	Field Determinations	
Project Name:		pH:	7.78 pH Units
Sample Description:	Approx 100' downstream from middle dredge pc	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	198 uMHO
Project Site No.:	2A	Temperature:	22.47
Station No.:	Dredge Plume	Dissolved Oxygen:	10.52 mg/L
Date/Time Collected:	09/03/2009 10:01	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	09/13/2009		
Date/Time Received:	09/03/2009 12:47		
Received By:	E McCrary		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	180	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	480	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	3.5J	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	39	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.28J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	2.7	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.36J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	44	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.093J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	2.5J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820004

Project Name:

Sample Description: Approx 100' downstream from middle dredge pc

Sampler Project Name: TVA Ash Spill

Project Site No.: 2A

Station No.: Dredge Plume

Date/Time Collected: 09/03/2009 10:01

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-WPC

Billing Code: 327.34-20

Send Report To: TDEC-WPC

Agency Invoiced: TDEC-WPC

Priority Date: 09/13/2009

Date/Time Received: 09/03/2009 12:47

Received By: E McCrary

Field Determinations

pH: 7.78 pH Units

Chlorine, residual:

Conductivity: 198 uMHO

Temperature: 22.47

Dissolved Oxygen: 10.52 mg/L

Other:

Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.10J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820005
Project Name:
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 09/03/2009 10:09
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 209 uMHO
Temperature: 22.15
Dissolved Oxygen: 10.64 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	160	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	280	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	1.7J	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	34	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.22J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	2.5	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.27J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	42	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.052J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	3.0J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820005
Project Name:
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 09/03/2009 10:09
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 209 uMHO
Temperature: 22.15
Dissolved Oxygen: 10.64 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.10J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820006
Project Name:
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 09/03/2009 10:21
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.79 pH Units
Chlorine, residual:
Conductivity: 220 uMHO
Temperature: 20.83
Dissolved Oxygen: 10.97 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	130	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	180	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	1.6J	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	41	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.23J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	2.0	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.23J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	45	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	1.4	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.052J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	2.0J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820006
Project Name:
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 09/03/2009 10:21
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations

pH: 7.79 pH Units
Chlorine, residual:
Conductivity: 220 uMHO
Temperature: 20.83
Dissolved Oxygen: 10.97 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.08J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820007
Project Name:
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 09/03/2009 10:32
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.82 pH Units
Chlorine, residual:
Conductivity: 257 uMHO
Temperature: 19.85
Dissolved Oxygen: 11.43 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	100	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	100	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	0.33J	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	2.2J	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	44	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.23J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	2.2	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.23J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	49	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	1.4	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.085J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	2.2J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820007
Project Name:
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 09/03/2009 10:32
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.82 pH Units
Chlorine, residual:
Conductivity: 257 uMHO
Temperature: 19.85
Dissolved Oxygen: 11.43 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.09J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002820008
Project Name:
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 09/03/2009 10:46
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 222 uMHO
Temperature: 23.32
Dissolved Oxygen: 9.72 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	82	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	130	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	2.3J	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	37	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.16J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	2.7	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.14J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	41	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.058J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	2.5J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820008
Project Name:
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 09/03/2009 10:46
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 222 uMHO
Temperature: 23.32
Dissolved Oxygen: 9.72 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.09J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002820009
Project Name:
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 09/03/2009 10:55
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.70 pH Units
Chlorine, residual:
Conductivity: 281 uMHO
Temperature: 23.78
Dissolved Oxygen: 10.29 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	150	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	330	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	0.39J	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	3.6J	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	42	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.23J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	5.2	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.24J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	50	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	0.078J	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	4.2J	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	4.0J	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number: K00002820009
Project Name:
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 09/03/2009 10:55
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 09/13/2009
Date/Time Received: 09/03/2009 12:47
Received By: E McCrary

Field Determinations
pH: 7.70 pH Units
Chlorine, residual:
Conductivity: 281 uMHO
Temperature: 23.78
Dissolved Oxygen: 10.29 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number:	K00002820010	Field Determinations	
Project Name:		pH:	7.76 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	263 uMHO
Project Site No.:	6	Temperature:	19.54
Station No.:	CLINC004.5RO	Dissolved Oxygen:	11.30 mg/L
Date/Time Collected:	09/03/2009 11:09	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	09/13/2009		
Date/Time Received:	09/03/2009 12:47		
Received By:	E McCrary		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/04/2009				A Wilson	9/4/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	80	µg/L	2.9	10	A Bass	9/9/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	45	µg/L	6.4	10	M Pattanayek	9/4/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	9/4/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	9/4/2009
Barium	33	µg/L	2.5	5	M Pattanayek	9/4/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	9/4/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	9/4/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	9/4/2009
Cobalt	0.14J	µg/L	0.04	1	M Pattanayek	9/4/2009
Copper	1.6	µg/L	0.38	1	M Pattanayek	9/4/2009
Lead	0.13J	µg/L	0.10	1	M Pattanayek	9/4/2009
Manganese	32	µg/L	0.42	1	M Pattanayek	9/4/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	9/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	9/4/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	9/4/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	9/4/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	9/4/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	9/4/2009

Lab-Sample Number:	K00002820010	Field Determinations	
Project Name:		pH:	7.76 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	263 uMHO
Project Site No.:	6	Temperature:	19.54
Station No.:	CLINC004.5RO	Dissolved Oxygen:	11.30 mg/L
Date/Time Collected:	09/03/2009 11:09	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	09/13/2009		
Date/Time Received:	09/03/2009 12:47		
Received By:	E McCrary		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	9/10/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected